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(54) Title: TEMPORARY, PHARMACOLOGICALLY-INACTIVE DENTAL COATING FOR THE *IN SITU* PROTECTION OF DENTAL THERAPEUTIC AGENTS FROM SALIVA AND ABRASION FROM CHEWING

(57) **Abstract:** Topical application of a pharmacologically-inactive, inert polymeric solution to teeth affords a temporary, protective barrier for pharmacologically-active compounds that have been previously applied topically to the tooth surfaces for caries reduction. In a method of use, an aqueous dispersion polymethylmethacrylate (PMMA) and a suitable plasticizer are applied topically to the tooth surface immediately after the topical application of chlorhexidine or fluoride. The inert coating thus formed is distinct from any pharmacologically-active substance, and remains on the tooth surface until abraded by the chewing of hard foods. In a composition of matter, the solution contains ammonio methacrylate copolymer, type B USP/NF of between 20% and 35% w/w; triethyl citrate USP/NF of between 1% and 10% w/w; and purified water of between 60% and 70% w/w. The ammonio methacrylate copolymer is preferably EUDRAGIT RS 30 D brand available from Rohm GmbH.